



The Center of Excellence for  
**FOOD SAFETY RESEARCH IN**  
**CHILD NUTRITION PROGRAMS**

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## Food Safety Practices in Childcare Centers in Kansas

### Introduction

- Approximately 3 million children attend childcare regularly, therefore, it is important to ensure foodservice employees and teachers follow safe food handling practices to reduce the chances that children will get sick.
- Between 1998 and 2010, there have been over 50 foodborne illness outbreaks in childcare centers, causing 1,972 illnesses and 78 hospitalizations (CDC, 2012).
- There is limited research related to food safety in childcare centers.

### Purpose

The purpose of this study was to explore the food safety knowledge, practices, and barriers to safe food handling practices of childcare center employees. Specific research questions were:

1. What is the food safety knowledge of employees in childcare centers?
2. Do employees in childcare centers follow proper food handling practices in kitchens and classroom to ensure safe food is served?
3. What food safety training is provided to childcare center employees?
4. What are the barriers to safe food handling practices in childcare centers?

### Methodology

- A convenience sample of childcare centers from Manhattan, KS was chosen for this study.
- Observations were conducted in the kitchen (foodservice employees) and in the classroom (teachers).
- Employees completed a questionnaire that gathered demographic, food safety training information, and food safety knowledge.
- SPSS (v.20. 0) was used to analyze quantitative data. Comments, open-ended questions, and notes were compiled and sorted into groups.

### Results

- Ten childcare centers agreed to participate in the study.
- Observations were conducted for two days during lunch, resulting in 20 total observations
- A total 13 foodservice workers and six teachers completed the questionnaire.

### Results, Continued

- For foodservice workers, the average score of food safety knowledge was 43.3±73.2 out of 54, while teachers scored slightly lower at 42.5±7.0 out of 54.
- A total of 291 hand washing observations were recorded.
  - Employees only washed hands properly and when required 87 times (29%) during food preparation.
- Over half of the employees checked the internal temperature of food correctly (19 of 28).
- Although greater than half of the foodservice workers (11 of 19) had some type of food safety training, only five of them have food safety credentials.
- Based on the observations, time constraints, lack of equipment, and limited space were identified as the main barriers to implementing safe food handling.

### Application

- To-date, no research has been conducted about food safety behaviors of childcare center employees or teachers. This study provides baseline data for researchers, foodservice managers, and educators.

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